

Amendments to the Claims:

1. (currently amended) A bipolar plate for PEM fuel cells ~~made of~~ comprising a plastic structure having a surface zone including gas-transport channels, the plastic structure comprising a polymer blend which is filled with conductivity-enhancing carbon fillers and which includes at least two mutually nonmiscible blend polymers, wherein the at least two blend polymers form a co-continuous structure and the carbon fillers are at a higher concentration in one of the blend polymers or in the phase between the blend polymers, or wherein a blend polymer in which the carbon fillers are at a higher concentration forms a continuously conductive matrix in which the at least one further blend polymer is intercalated.
2. (previously presented) The bipolar plate as claimed in claim 1, wherein the carbon fillers are selected from conductive black, graphite, carbon fibers, carbon nanotubes and mixtures thereof.
3. (previously presented) The bipolar plate as claimed in claim 1, wherein the polymer blend comprises from 25 to 95 wt% of blend polymers and from 5 to 75 wt% of carbon fillers.
4. (original) The bipolar plate as claimed in claim 3, wherein the polymer blend contains as carbon fillers
from 1 to 30 wt% of conductive black,
from 5 to 60 wt% of carbon fibers, and
from 0 to 25 wt% of carbon nanotubes,
the total amount of carbon fillers being from 6 to 70 wt%, in each case based on the total weight of the polymer blend.
5. (previously presented) A bipolar plate as claimed in claim 1, wherein the blend polymers

have different polarities and the carbon fillers are at a higher concentration in the more polar blend polymer.

6. (original) The bipolar plate as claimed in claim 5, wherein the polymer blend includes at least one polyamide and at least one polyether ketone or polyether sulfone as blend polymers.
7. (original) The bipolar plate as claimed in claim 6, wherein the weight ratio, in the polymer blend, of polyamide to polyether ketone/polyether sulfone is from 1:8 to 8:1.
8. (previously presented) A method of fabricating bipolar plates as claimed in claim 1 by preparing and shaping the polymer blend filled with conductivity-enhancing carbon fillers.
9. (previously presented) A PEM fuel cell comprising bipolar plates as claimed in claim 1.
10. (canceled)
11. (currently amended) A polymer blend which is filled with conductivity-enhancing carbon fillers and which includes at least two mutually nonmiscible blend polymers, wherein the at least two blend polymers form a co-continuous structure and the carbon fillers are at a higher concentration in one of the blend polymers or in a phase between the blend polymers ~~as defined in claim 1, filled with conductivity enhancing carbon fillers and having a co-continuous structure.~~